Multi-Line
Business Phone

MODEL 2-9450

Installation Instructions

BEFORE YOU BEGIN...

The GE model 2-9450 is a multiple line business telephone that is designed for easy installation in your home or office.

However, it is important that you follow these few simple guidelines.

■ Take a few minutes to read this material so that you thoroughly understand the sequence of steps to be followed for proper installation of your GE 2-9450 telephones.

■ As you read the instructions you may require additional line cords or other components not included with this product. These items will be indicated by this symbol: (not provided).

■ These Installation Instructions have been designed for installation only of your GE 2-9450 telephone system. The separate Use and Care Guide provides easily understood directions for operation after installation.
Retain your working copy of these Installation Instructions for future reference when adding stations or making changes to your system.

IMPORTANCE OF INSTALLING A 9V BATTERY:

Your GE Multi-Line Business Phone has been designed to accept a 9V Alkaline Battery (Not Provided) for two very important reasons. First, it provides backup power to allow you to use the telephone in the event of an AC power outage. Second, should there be a power outage, or if the AC power supply is disconnected, all numbers in memory and any other stored information will be preserved until AC power is restored.

Battery installation procedures are explained in both Step 3 (Installing Desk or Table Top Telephones) and Step 4 (Installing Wall Mounted Telephones). Please follow these procedures carefully. Carefully remove the unit from the package. Check this list to be certain all components are included.

☐ Telephone Base Unit   ☐ Two Long Telephone Line Cords

☐ Handset   ☐ One Short Telephone Line Cord

☐ Coiled Cord   ☐ AC Power Supply with AC Power Cord
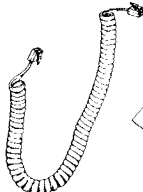
☐ Use and Care Guide

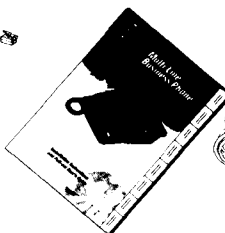If any component is missing, return the packaged product to the place of purchase for a complete exchange.
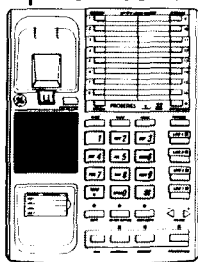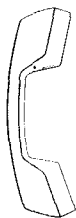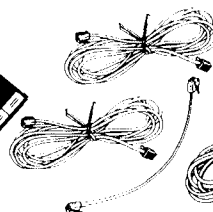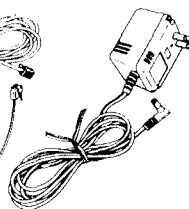

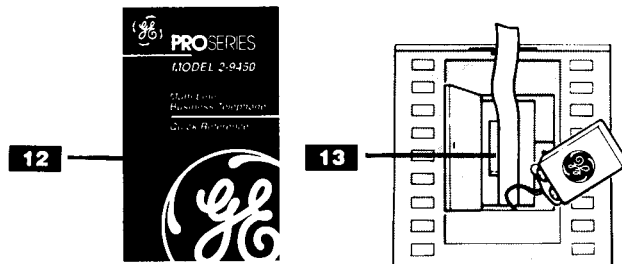| Telephone Base Unit | Handset | Coiled Cord | Use and Care Guide | Telephone Line Cords | AC Power Supply with AC Power Cord |

FEATURES:

- 32 One-Touch Memory
- Volume Control Buttons
- Pulse/Tone Switch
- Temporary Tone
- Intercom
- Page
- Call Transfer
- Fast Redial
- Mute
- Do Not Disturb
- Auto Busy Redial
- Hold
- Conference
- Speakerphone

LOCATION OF CONTROLS:

1.- Handset
2.- Handset Jack
3.- Coiled Cord
4.- Base Jack
5.- Telephone Line Cord
6.- Speaker
7.- Station Page Button
8.- Handset Hook
9.- Hook Switch
10.- Telephone Base Unit
11.- Memory Index Cover
12.- Quick Reference Guide
13.- Battery Compartment
14.- Memory Index Card
15.- Memory Buttons
16.- Store/In Button
17.- Battery Low Indicator
18.- Lower Button
19.- Flash Button
20.- Pause Button
21.- Redial Button
22.- Transfer Button
23.- Line Button
24.- Telephone Key Pad
25.- Mute Button
26.- Do Not Distrub Button
27.- Busy Redial Button
28.- Volume Up & Down Buttons
29.- Speakerphone Button
30.- Speaker Microphone
31.- Intercom Button
32.- Conference Button
33.- Hold Button
34.- Power Cord Jack
35.- Phone Line Jacks
36.- Pulse/Tone Switch
37.- Back Cover Plate
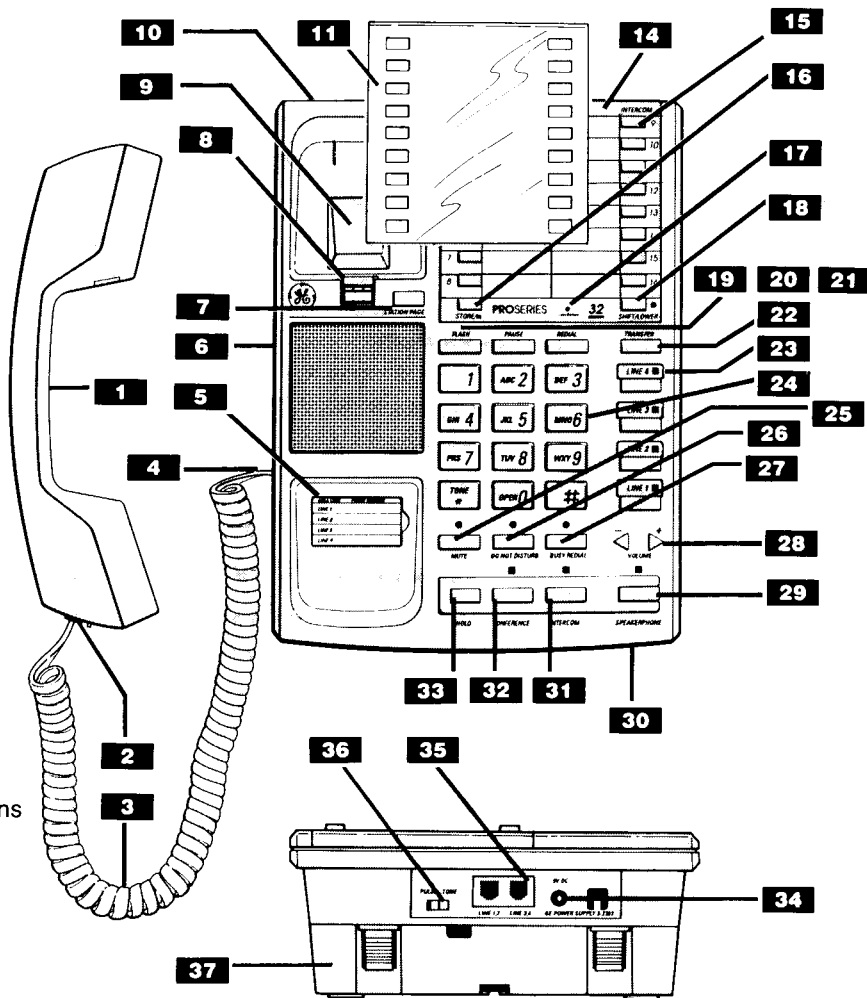
1. Identify Your Existing Wiring System

In order for you to properly connect your GE 2-9450 telephones to an ex-isiting wiring system it is **imperative** that you understand its configuration. The following are the most common multiple line situations. They consist of either one or both types of standard telephone jacks: the RJ11 Single Line Jack; and the RJ14 Double Line Jack. Your system should match one of them.

2 incoming lines with
1 wall jack
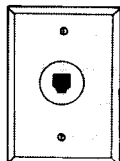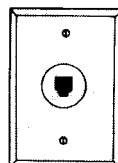
LINE 1-2
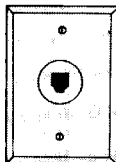RJ14 JACK

2 incoming lines with
2 wall jacks
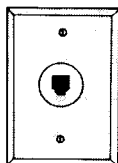
LINE 1   LINE 2
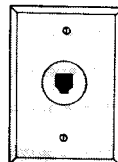RJ11 JACK   RJ11 JACK

3 incoming lines with
2 wall jacks

LINE 1-2   LINE 3
RJ14 JACK   RJ11 JACK
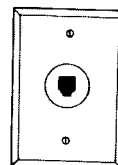
3 incoming lines with
3 wall jacks
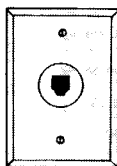
LINE 1   LINE 2   LINE 3
RJ11 JACK   RJ11 JACK   RJ11 JACK
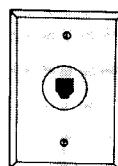
4 incoming lines with
2 wall jacks
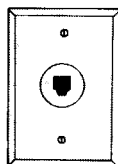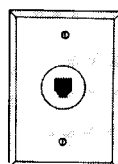
LINE 1-2   LINE 3-4
RJ14 JACK   RJ14 JACK

4 incoming lines with
3 wall jack

LINE 1-2	LINE 3	LINE 4
RJ14 JACK	RJ11 JACK	RJ11 JACK
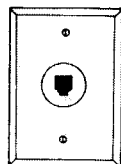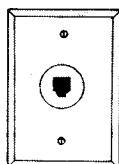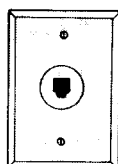
4 incoming lines with
4 wall jacks
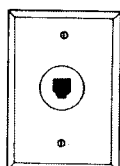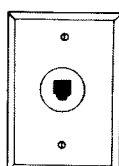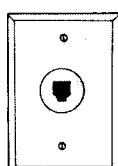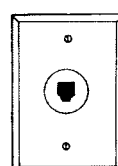
LINE 1	LINE 2	LINE 3	LINE 4
RJ11 JACK	RJ11 JACK	RJ11 JACK	RJ11 JACK

Label the jacks at each location.

Identifying and labelling each jack at each location is also critical. To do so, simply take a felt tip pen and write the information on the jack plate.

For example:

Lines 1 & 2
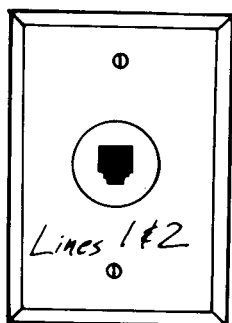
If you have difficulty in identifying wall jacks.

Call the vendor who installed the inside wiring and ask for assistance in identifying your existing wiring system and jacks.

If you are installing new wiring and jacks.

If the telephone wiring and modular jacks need to be installed, install two-line RJ14 jacks at each telephone location. Each RJ14 jack accommodates two telephone lines. If 3 or 4 lines are to be used, two modular jacks will be needed for each telephone.

2. Plan Your Installation

After identifying the system wiring, use the WORK SHEET to the right to plan you installation.

Up to 16 GE 2-9450 telephones may be connected to form your office configuration. Each phone will be assigned a Station Number (first column). In the second column, write the location. Next, check either "desk" or "wall" placement. Then check which lines are to be connected to that station.

Important: Each telephone must be connected to line 1 and line 2 for proper operation. The remaining lines 3 and 4 may — or may not — be connected to each station as you desire. Finally, enter the user's name for each station.

Example:

Work Sheet

Station Number	Location	Placement Desk/Wall	Tel. 1 # 55-5430	Tel. 2 # 5431	Tel. 3 # 5452	Tel. 4 # 5433	User's Name
							Janet
				✓	✓	✓	Bob/John
No. 1	Recept.	Desk	✓	✓			Ed
No. 2	Lab	Wall	✓	✓			Valerie
No. 3	Eng.	Wall	✓	✓	✓	✓	Mike
No. 4	Eng.	Desk	✓	✓	✓	✓	Tom
No. 5	Office #1	Desk	✓	✓	✓	✓	
No. 6	Office #2	Desk		✓	✓		
No. 7							
No. 8							

Work Sheet

Station Number	Location	Placement Desk/Wall	Lines to be Connected				User's Name
			Tel. 1 #	Tel. 2 #	Tel. 3 #	Tel. 4 #	
No. 1			✓	✓			
No. 2			✓	✓			
No. 3			✓	✓			
No. 4			✓	✓			
No. 5			✓	✓			
No. 6			✓	✓			
No. 7			✓	✓			
No. 8			✓	✓			
No. 9			✓	✓			
No. 10			✓	✓			
No. 11			✓	✓			
No. 12			✓	✓			
No. 13			✓	✓			
No. 14			✓	✓			
No. 15			✓	✓			
No. 16			✓	✓			

3. Install Desk or Table Top Telephones

IMPORTANT: Telephone line cords must be connected (Steps **D** through **F**) before AC power connection is made (Step **G**). Please follow these steps in their proper sequence.

The GE 2-9450 telephone has been factory assembled for use on a desk or table.

A. Remove the clear *ACRYLIC COVER* that covers the *MEMORY INDEX*. Carefully remove the *MEMORY INDEX CARD* and the *QUICK REFERENCE GUIDE*.

B. *NOTE: THIS STEP IS ESSENTIAL.*

You must install a 9V Alkaline Battery. It provides back-up power to preserve numbers in memory and any other stored information in the event of any interruption of AC power to the telephone. More importantly it allows use of the phone during power outages.

Unscrew the *BATTERY COVER*. Pull the battery removal ribbon so that it extends out of the top of the battery compartment. Insert a 9V Alkaline Battery (Not Provided) and replace the *BATTERY COVER*.

C. In pencil, write in all the users' names you've listed on the worksheet under the appropriate station numbers on the *MEMORY INDEX CARD*. Replace the *QUICK REFERENCE GUIDE, MEMORY INDEX CARD* and the *ACRYLIC COVER*.

D. Connect one end of a *LONG TELEPHONE LINE CORD* to the jack on the back of the telephone labelled *LINE 1-2*. Connect the other end to the jack(s) labelled *1 & 2* either:

1. directly to the wall jack if it is a two-line RJ14 jack.

OR

2. to a two line adapter (not provided) if you have two single line RJ11 jacks for lines *1 & 2*. Connect the adapter to the wall jacks with short telephone line cords (Not Provided).
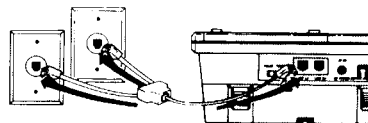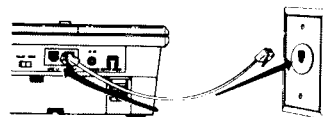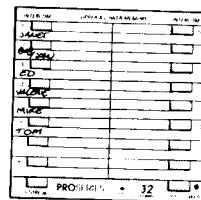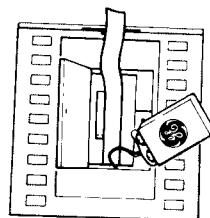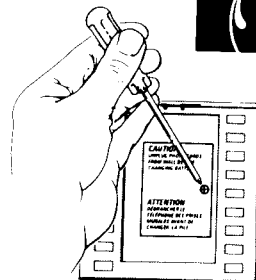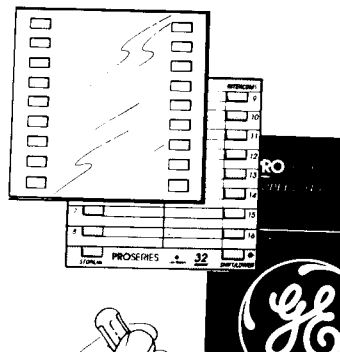
E. Connect a *LONG TELEPHONE LINE CORD* to the jack on the back of the telephone labelled *LINE 3-4*. Connect the other end to wall jack(s) labelled *3 & 4* in the same manner described above.

F. Connect either end of the *COILED CORD* to the jack on the side of the *TELEPHONE BASE UNIT*. Connect the other end to the jack in the *HANDSET*. Place the *HANDSET* in the cradle.

G. Plug the *AC POWER SUPPLY CORD* into the jack on the telephone labelled DC 9V. Thread the cord behind the *STRAIN RELIEF*. Plug the *AC POWER SUPPLY* into the nearest electrical outlet.

H. After you plug in the *AC POWER SUPPLY* you should see the *INTERCOM LED* flash red and green. Consult the *WORKSHEET* above to see which Station Number you have assigned to this telephone. Press *that same number* on the *MEMORY/INTERCOM IN-DEX*. The phone will beep, and the LED will start flashing red as it checks to see if this station address is already in use. If this station address is not already in use, the LED will turn off and the telephone will automatically conduct a "line check". During the "line check" the line LED's for each line connected will turn green. After a few seconds all *LEDs* will go off and you will here 3 beeps and the telephone should be fully functional.

NOTE: If you hear an error tone, the intercom number you pressed has already been assigned to another station or the *TELEPHONE LINE CORDS* are not properly connected. Check the *LINE CORD* connections. Check the station number assignments on your worksheet and repeat the procedure. (If you need to change the address of a station, refer to page 28 in the Use and Care Guide)

I. If you desire, you may turn off the ringer for any line or lines at any station. Press the *STORE* button and you should see a red *LED* for each *LINE* button. The *LED* indicates the line is active and will ring. To disable a ringer press these buttons in the sequence to the right:

The *LED* should turn off, indicating a disabled ringer. Repeat this sequence for each ringer you wish to disable.

To turn a ringer back on: See page 23 of the accompanying *USE AND CARE GUIDE*.

Note: For complete information on the programming and use of your GE Model 2-9450 telephone, consult the accompanying USE AND CARE GUIDE.

TO DISABLE RINGER

1. [STORE/m] PRO

2. [OPER()]

3. [STORE/m] PRO

4. [LINE 1 ■]
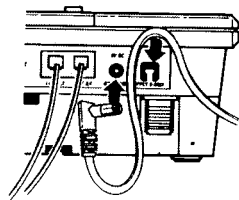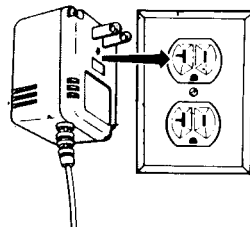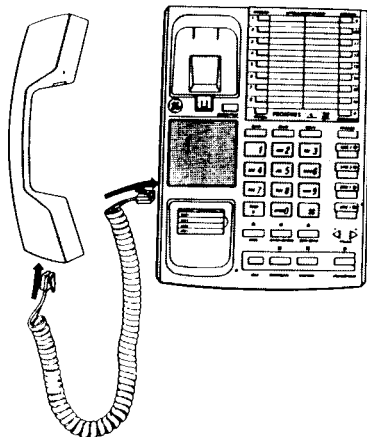
4. Install Wall Mounted Telephones (optional)

(optional)

IMPORTANT: Telephone line cords *must* be connected (Steps **E** through **L**) before AC power connection is made (Step **M**). Please follow these steps in their proper sequence.

The GE 2-9450 telephone can be wall mounted to an existing wall phone jack.

A. Remove the clear *ACRYLIC COVER* that covers the *MEMORY INDEX*. Carefully remove the *MEMORY INDEX CARD* and the *QUICK REFERENCE GUIDE*.

B. *NOTE: THIS STEP IS ESSENTIAL.*
You must install a 9V Alkaline Battery. It provides back-up power to preserve numbers in memory and any other stored information in the event of any interruption of AC power to the telephone. More importantly it allows use of the phone during power outages.

Unscrew the *BATTERY COVER*. Pull the battery removal ribbon so that it extends out of the top of the battery compartment. Insert a 9V Alkaline Battery (Not Provided) and replace the *BATTERY COVER*.

C. In pencil, write in all the users' names you've listed on the worksheet under the appropriate station numbers on the *MEMORY INDEX CARD*. Replace the *QUICK REFERENCE GUIDE*, *MEMORY INDEX CARD* and the *ACRYLIC COVER*.

D. Reverse the *HANDSET HOOK* by firmly sliding it out of cradle, rotating it 180°, and sliding it back into the cradle.

E. Remove the *BACK COVER PLATE* from the *TELE-PHONE BASE UNIT* by pushing in the two tabs.

F. If the wall jack is labelled *Line 1-2*, connect the short *TELEPHONE LINE CORD* to the jack on the telephone labelled LINE 1-2. If the wall jack is labelled Line 3-4, connect the cord to the jack on the telephone labelled *LINE 3-4.*

G. Thread the *SHORT TELEPHONE LINE CORD* through the square hole in the center of the *BACK COVER PLATE.*

H. Connect a *LONG TELEPHONE LINE CORD* to the jack on the telephone labelled DC 9V.

I. Plug the *AC POWER CORD* into the jack on the telephone labelled DC 9V.

Important: *Do not plug the AC POWER CORD into an electrical outlet at this point.*

J. Thread the long *TELEPHONE LINE CORD* and the *AC POWER CORD* through the *CHANNEL* on the back of the *BACK COVER PLATE* so that the cords are taut at the top of the telephone. (attach the *BACK COVER PLATE* to the *BASE* so that the narrow end is at the top of the telephone).

K. Hold the phone close to the wall jack and connect the short *TELEPHONE LINE CORD* to the jack.

L. Hold the telephone against the wall jack face plate so the studs on the face plate slide into the keyholes on the *BACK COVER PLATE*. Slide the telephone down firmly so that it is locked securely in place.

M. Connect either end of the *COILED CORD* to the jack on the side of the *TELEPHONE BASE UNIT*. Connect the other end to the jack in the *HAND-SET*. Place the *HANDSET* on the *HANDSET HOOK.*

N. Connect the long *TELEPHONE LINE CORD* to the jack by the baseboard.
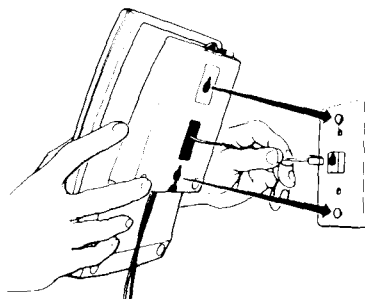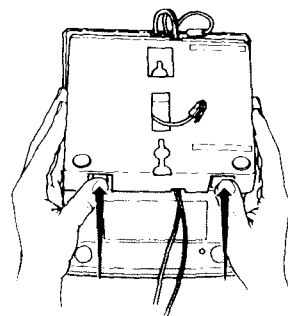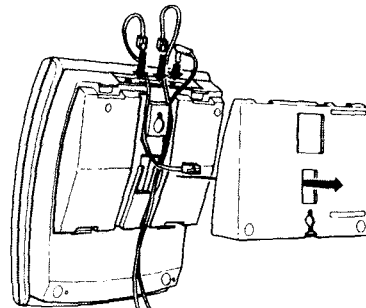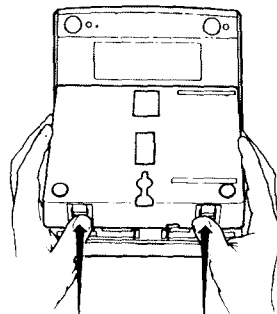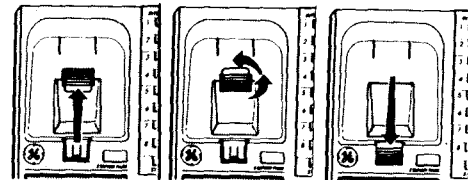
O. Plug the *AC POWER SUPPLY* into the nearest electrical outlet.

P. After you plug in the *AC POWER SUPPLY* you should see the *INTERCOM LED* flash red and green. Consult the *WORKSHEET* above to see which Station Number you have assigned to this telephone. Press *that same number on the MEMORY/INTERCOM INDEX*. The phone will beep, and the LED will start flashing red as it checks to see if this station address is already in use. If this station address is not already in use, the LED will turn off and the telephone will automatically conduct a "line check". During the "line check" the line LED's for each line connected will turn green. After a few seconds all *LEDs* will go off and you will here 3 beeps and the telephone should be fully functional.

Note: If you hear an error tone, the intercom number you pressed has already been assigned to another station or the *TELEPHONE LINE CORDS* are not properly connected. check the *LINE CORD* connections. Check the station. Check the extension number assignements on your worksheet and repeat the procedure. (If you need to change the address of a station, refer to page 28 in the Use and Care Guide)

Q. If you desire, you may turn off the ringer for any line or lines at any station. Press the *STORE* button and you should see a red *LED* for each *LINE* button. The *LED* indicates the line is active and will ring. To disable a ringer press these buttons in this sequence to the right:

The *LED* should turn off, indicating a disabled ringer. Repeat this sequence for each ringer you wish to disable.

To turn a ringer back on: See page 23 of the accompanying *USE AND CARE GUIDE*.

TO DISABLE RINGER

1. [STORE/PRO] PRO

2. [OPEN]

3. [STORE/PRO] PRO

4. [LINE 1]

Note: For complete information on the programming and use of your GE Model 2-9450 telephone, consult the accompanying USE AND CARE GUIDE.

5. System Verification

Problem? Check the following for a solution before calling our toll free "HELP" number at 800-448-0329

The following procedure should be used to test system configuration and identify possible system connection errors. The phone must be connected to the AC power supply, lines 1 and 2 must be connected to the line 1, 2 jack, and the phone must have been programmed with an intercom station address.

1. Press the line 1 button. The line 1 LED and speakerphone LED should turn green and dial tone should be heard from the speaker.

2. Dial the number for line 2. A three beep call pending tone should be heard and the LED for line 2 should rapidly flash red with the ring signal. If the LED for line 2 does not flash then line 2 is improperly connected to the phone.

3. If your configuration utilizes line 3 and/or line 4, repeat steps 1 and 2 substituting the respective phone number(s) in step 2.

6. Troubleshooting Chart

PROBLEM	SOLUTION
LED's do not light.	Is AC power supply plugged into an electrical outlet and the telephone.
Telephone does not operate during power outages.	Is a good 9 volt battery installed? (A 9 volt battery will allow use of the handset during power outages.)
Telephone functions with the handset, but there is no response to any button with the phone on hook.	Is AC power supply plugged into an electrical outlet and the back of the telephone.
LED above intercom button is flashing red and green.	Intercom Station needs to be programmed. Press Intercom station address button.
LED above Intercom button is flashing red and green and an error tone sounds when any intercom station address button is pressed.	Check that lines 1 and 2 are properly connected to the telephone.
While programming the Intercom Station Address the Intercom LED flashes red, then the phone beeps and the Intercom LED starts flashing red and green again.	The Intercom Station Address selected is already in use by another telephone. Select another Intercom Station Address. (The Intercom Station Address for a telephone can be verified by pressing each station address button until a 3 beep tone is heard.)
When making an intercom call the Intercom LED turns green, then an error tone is heard and the LED turns off.	Intercom Station being called is not assigned or has been disconnected. The intercom station address for a phone can be checked by pressing all the station address buttons until a 3 beep response is heard.)
Telephone does not indicate status of other 2-9450 telephones and Intercom/Page is not functioning.	Improper line connection. Perform System Verification in the Installation Instructions. (Step 5)

6.

Troubleshooting Chart

PROBLEM	SOLUTION
Telephone does not indicate the Line in Use of other types of telephones.	This product only indicates the status of other 2-9450 telephones.
No dial tone when handset is picked up.	This is normal. To use, a line button must be pressed after picking up the handset.
No dial tone when line button is pressed.	Is AC power supply plugged into an electrical outlet and the telephone. Check hookswitch: Does it fully extend from the base when the handset is lifted. Is a good 9 volt battery installed? Note: During power outages a 9 volt battery allows the use of the handset for making phone calls.
Will not dial.	Check Pulse/Tone switch. Is it in the Tone position which may not be compatible with your local dialing service from the Telephone Company? Try dialing with the switch in each position.
There is a clicking sound during dialing.	This is normal during pulse dialing as the phone pulses the line to tell the telephone office what number is dialed.
You cannot be heard by other party.	Is the handset cord inserted properly and securely to the handset and telephone? Is Mute on?
Cannot hear the other party or other party is hard to hear.	Check volume control setting. Pressing both volume control buttons at the same time will return the volume control to mid-range.
Phone does not ring.	Check cords: Are they inserted properly and securely? Are they damaged?
Line LED flashes, but phone does not ring.	Is ringer off? Is Do Not Disturb feature activated?
The telephone continues to ring after the handset has been picked up.	This is normal. To answer a call pick up the handset and press the button for the line that is ringing. See page 10 in the Use and Care Guide, Receiving Incoming Calls.
Low Battery LED flashes.	9 volt battery is low. Replace 9 volt battery.
Low Battery LED stays on.	9 volt battery is exhausted or not installed. Replace or install 9 volt battery.

FCC REGISTRATION INFORMATION

Your GE telephone equipment is registered with the Federal Communications Commission and is in compliance with parts 15 and 68, FCC Rules and Regulations.

1. *Notification to the Local Telephone Company*

   On the bottom of this equipment is a label indicating among other information, the FCC Registration number and Ringer Equivalence Number (REN) for the equipment. You must, upon request, provide this information to your telephone company.

   If you require new telephone lines installed: Please provide the following information to your telephone company when connection is requested:

   FIC   - 02LS2
   SOC   - 90F
   USOC - RJ14C

   The REN is useful to determine the number of devices you may connect to your telephone line and still have all these devices ring when your telephone number is called. In most (but not all) areas, the sum of the REN's of all devices connected to one line should not exceed 5. To be certain of the number of devices you may connect to your line as determined by the REN, you should contact your local telephone company.

   NOTES: This equipment may not be used on coin service provided by the telephone company.

   Party lines are subject to state tariffs, and therefore, you may not be able to use your own telephone equipment if you are on a party line. Check with your local telephone company.

   Notice must be given to the telephone company upon permanent disconnection of your telephone from your line.

2. *Rights of the Telephone Company.*

   Should your equipment cause trouble on your line which may harm the telephone network, the telephone company shall, where practicable, notify you that temporary discontinuance of service may be required. Where prior notice is not practicable and the circumstances warrant such action, the telephone company may temporarily discontinue service immediately. In case of such temporary discontinuance, the telephone company must: (1) promptly notify you of such temporary discontinuance, (2) afford you the opportunity to correct the situation and (3) inform you of your right to bring a complaint to the Commission pursuant to procedures set forth in Subpart E of Part 68, FCC Rules and Regulations.

   The telephone company may make changes in its communications facilities, equipment, operations of procedures where such action is required in the operation of its business and not inconsistent with FCC Rules and Regulations. If these changes are expected to affect the use or performance of your telephone equipment, the telephone company must give you adequate notice, in writing, to allow you to maintain uninterrupted service.

INTERFERENCE INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna (that is, the antenna for radio or television that is "receiving" the interference).
- Reorient or relocate and increase the separation between the telecommunicaitons equipment and receiving antenna.
- Connect the telecommunications equipment into an outlet on a circuit different from that to which the receiving antenna is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If these measures do not eliminate the interference, please consult your dealer or an experienced radio/television technician for additional suggestions. Also, the Federal Communications Commission has prepared a helpful booklet, "How To Identify and Resolve Radio/TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402. Please specify stock number 004-000-00345-4 when ordering copies.

HEARING AID COMPATIBILITY

This telephone is judged to be hearing aid compatible per FCC standards.